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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/304,406	05/04/1999	RALPH E. SIPPLE	33012/263/10	9618

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ART UNIT	PAPER NUMBER
2611	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/304,406	SIPPLE ET AL.
	Examiner	Art Unit
	Hunter B. Lonsberry	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _23 June 2003_ .

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-20_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _12 September 2002_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, and 16-20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over U.S. Patent 5,583,561 to Baker in view of U.S. Patent 6,049,823 to

Hwang and U.S. Patent 5,600,573 to Hendricks.

Regarding claim 1, Baker discloses in Figure 1, a Video on Demand system

which supplies a video program to a subscriber receiver 22, a transaction server (VOD

server 12) is connected to a video library 10 that stores VOD programs (column 6, line

38-45), video server 12 receives video requests from users (column 7, lines 28-55)

retrieves the requested video from the video library 10 and passes it on to the network

interface which in turn transfers it to the user's receiver 22 (column 7, line 45-55). Baker

does not disclose a plurality of video servers coupled to the transaction server and

temporary storage memory. Hwang discloses in Figures 2-4, an ITV server which

receives request information and billing information and sends VOD requests to a video

server which reads movie data from a DVD which in turn sends the video data to a

channel processor which acts as a local video server, the channel processor is in turn

connected to a number of local set top boxes for distributing the streamed video, a

channel processor may be assigned to create a private viewing channel for a particular

set top box (column 2, lines 27-67, column 7, line 47-column 8, line 67, column 9, line

64-column 10, line 28, column 13, lines 1-32, line 57-column 14, line 9, column 19, lines

15-28, column 21, lines 9-24). Hendricks discloses a storage system 308 which

receives content from a number of receivers and stores it and then spools it out on

request, first buffering it in an ATM buffer, headend 208 only stores the first few

seconds or minutes of a program and distributes it on demand, storage system 308 then

supplies the of the video program to the storage device in headend 208 which then

transmits the remainder of the program from the storage device within headend 208

seamlessly to the user (column 10, lines 1-23, column 14, line 59-column 15, line 7,

lines 31-46, column 19, line 55-column 20, line 18, column 21, line 38-column 22, line

26). Therefore, it would have been obvious to one skilled in the art at the time of

invention to modify Baker to include a number of video servers as taught by Hwang and

buffering system of Hendricks to relieve the load on the VOD database server.

Regarding claim 2, Baker discloses that video server 12 acts as a gateway,

controlling video program data which is transmitted to the users, and performs in a

middleware environment and is connected to video library 10 which contains the

programming (column 7, lines 28-55, Figure 4, column 10, line 64-column 11, line 22).

Additionally, Baker discloses in Figure 3, the use of a control server 54, which

processes viewer requests and grants access to the video servers (column 10, lines 38-

63). Baker does not disclose a video server frame and spooling program. Hwang discloses in Figures 2-4, that the transaction server and video library server are two separate devices. Hwang inherently contains middleware allowing the two different servers to interact. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Baker/Hendricks to include the separate transaction and video library servers as taught by Hwang thereby reducing the processor overhead required in a machine which performs both functions resulting in faster access and response times.

Regarding claim 3, Baker discloses that video server 12 may be a mainframe system (column 8, lines 43-51) and discloses in Figure 3 that the mainframe (video server 12) may be coupled to a transaction server 54 (control server 54, column 10, lines 38-63), additionally the mainframe can act as a transaction server in of itself (column 7, lines 28-55). Hwang discloses a separate transaction and video server (Figures 2-4).

Regarding claim 4, Baker discloses that video server 12 may be a Unisys mainframe system (column 8, lines 43-51).

Regarding claim 5, Baker discloses that the transaction server may spool the video (column 7, line 45-55) and that the format can be MPEG 2 (column 7, lines 9-16).

Regarding claim 16, Baker discloses a video server 12, coupled to a video database 10 which stores a number of VOD programs (Figure 1, column 6, line 38-64), video server 12 receives a VOD request from a subscriber and determines which VOD program corresponds to the request (column 7, lines 36-51), video server 12 spools the

VOD program from the video database 10 and streams it to the subscriber via network interface 18 (column 7, lines 45-55). Baker does not disclose spooling the VOD data into a temporary storage facility. Hendricks discloses a storage system 308 which receives content from a number of receivers and stores it and then spools it out on request, first buffering it in an ATM buffer, headend 208 only stores the first few seconds or minutes of a program and distributes it on demand, storage system 308 then supplies the of the video program to the storage device in headend 208 which then transmits the remainder of the program from the storage device within headend 208 seamlessly to the user (column 10, lines 1-23, column 14, line 59-column 15, line 7, lines 31-46, column 19, line 55-column 20, line 18, column 21, line 38-column 22, line 26). Hwang discloses in Figures 2-4, an ITV server which receives request information and billing information and sends VOD requests to a video server which reads movie data from a DVD which in turn sends the video data to a channel processor which acts as a local video server, the channel processor is in turn connected to a number of local set top boxes for distributing the streamed video, a channel processor may be assigned to create a private viewing channel for a particular set top box (column 2, lines 27-67, column 7, line 47-column 8, line 67, column 9, line 64-column 10, line 28, column 13, lines 1-32, line 57-column 14, line 9, column 19, lines 15-28, column 21, lines 9-24). Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Baker to include a number of video servers as taught by Hwang and buffering system of Hendricks to relieve the load on the VOD database server.

Regarding claim 17, Baker discloses that the VOD stream may be paused in response to a viewer command (column 12, lines 7-17).

Regarding claim 18, Baker discloses that the VOD stream may be rewound in response to a viewer command (column 12, lines 7-17).

Regarding claim 19, Baker discloses in Figure 8, that a user make issue a forward request 132 (column 16, lines 5-9).

Regarding claim 20, Baker discloses that video server 12 performs subscriber accounting and bills a subscriber for a VOD program request (column 7, lines 33-51).

Claims 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,583,561 to Baker in view of U.S. Patent 6,049,823 to Hwang and U.S. Patent 5,771,435 to Brown.

Regarding claim 6, Baker discloses in Figure 1, a Video on Demand system which supplies a video program to a subscriber receiver 22, a transaction server (VOD server 12) is connected to a database storage system (video library 10), which stores VOD programs (column 6, line 38-45), video server 12 receives video requests from users (column 7, lines 28-55) retrieves the requested video from the video library 10 and passes it on to the network interface which in turn transfers it to the user's receiver 22 (column 7, line 45-55). Baker does not disclose a plurality of video servers coupled to the transaction server. Hwang discloses in Figures 2-4, an ITV server which receives request information and billing information and sends VOD requests to a video server which reads movie data from a DVD which in turn sends the video data to a channel

processor which acts as a local video server, the channel processor is in turn connected to a number of local set top boxes for distributing the streamed video, a channel processor may be assigned to create a private viewing channel for a particular set top box, in addition the ITV server may host interactive sessions for several users at the same time to play games or do group shopping (column 2, lines 27-67, column 7, line 47-column 8, line 67, column 9, line 64-column 10, line 28, column 13, lines 1-32, line 57-column 14, line 9, column 19, lines 15-28, column 21, lines 9-24). Brown discloses a Server system in which a server receives a number of NOVD requests, the server then groups a number of users together and serves the video to a group of users (column 5, lines 4-15, 51-column 7 line 31, Figures 5/6). Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Baker to include a number of video servers as taught by Hwang and serving several users together as taught by Brown to relieve the load on the VOD database server by utilizing several servers which each manage several subscribers.

Regarding claim 7, Baker discloses that the transaction server may manage a subscriber account and charge the account for a program request, each subscriber has their own set top box (iTV panel) (column 7, lines 30-55, column 13, lines 54-61).

Regarding claim 8, Baker discloses that video server 12 acts as a gateway, controlling video program data which is transmitted to the users, and performs in a middleware environment and is connected to video library 10 which contains the programming (column 7, lines 28-55, Figure 4, column 10, line 64-column 11, line 22). Additionally, Baker discloses in Figure 3, the use of a control server 54, which

processes viewer requests and grants access to the video servers (column 10, lines 38-63). Baker does not disclose a video server frame and spooling program. Hwang discloses in Figures 2-4, that the transaction server and video library server are two separate devices. Hwang inherently contains middleware allowing the two different servers to interact. Therefore, it would have been obvious to one skilled in the art at the time of invention to modify Baker/Brown to include the separate transaction and video library servers as taught by Hwang thereby reducing the processor overhead required in a machine which performs both functions resulting in faster access and response times.

Regarding claim 9, Baker discloses that the transaction server may spool the video (column 7, line 45-55) and that the format can be MPEG 2 (column 7, lines 9-16).

Regarding claim 10, Baker discloses that video server 12 may be a Unisys mainframe system (column 8, lines 43-51).

Regarding claim 11, Baker discloses a VOD system in Figures 1 and 8, which includes a video library 10 which stores a plurality of video programs on a number of disks (Figure 1, column 6, line 38-64), a telephone 14, which a subscriber uses to generates requests for a VOD program (column 7, lines 36-39), video server 12 runs software which identifies the requested programming (column 7, lines 45-51), video server 12 then spools the requested VOD program to the network interface which distributes it to subscriber receiver 22 (column 7, lines 51-55). Hwang discloses in Figures 2-4, an ITV server which receives request information and billing information and sends VOD requests to a video server which reads movie data from a DVD which in turn sends the video data to a channel processor which acts as a local video server,

the channel processor is in turn connected to a number of local set top boxes for

distributing the streamed video, a channel processor may be assigned to create a

private viewing channel for a particular set top box, in addition the ITV server may host

interactive sessions for several users at the same time to play games or do group

shopping (column 2, lines 27-67, column 7, line 47-column 8, line 67, column 9, line 64-

column 10, line 28, column 13, lines 1-32, line 57-column 14, line 9, column 19, lines

15-28, column 21, lines 9-24). Brown discloses a Server system in which a server

receives a number of NOVD requests, the server then groups a number of users

together and serves the video to a group of users (column 5, lines 4-15, 51-column 7

line 31, Figures 5/6). Therefore, it would have been obvious to one skilled in the art at

the time of invention to modify Baker to include a number of video servers as taught by

Hwang and serving several users together as taught by Brown to relieve the load on the

VOD database server by utilizing several servers which each manage several

subscribers.

Regarding claim 12, Baker discloses that a subscriber receives the VOD program

on a receiver (decoder 22, column 8, lines 18-41).

Regarding claim 13, Baker discloses that video server 12 acts as a transaction

gateway (column 7, lines 28-55, Figure 4, column 10, line 64-column 11, line 22).

Regarding claim 14, Baker discloses that video server 12 processes subscriber

transactions (column 7, lines 36-55).

Regarding claim 15, Baker discloses that video server 12 is a Unisys mainframe

(column 8, lines 42-48).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,873,022 to Huizer: Method of Receiving Compressed Video Signals Using a Latency Buffer During Pause and Resume.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 703-305-3234. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for

the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

4700.

HBL

CHRIS GRANT
PRIMARY EXAMINER